

## Claims

- [001] A high-frequency heating device (1) which comprises, a magnetron (2) generating microwave energy, a filament circuit (3), an inverter which ensures that the magnetron (2) is powered by high-frequency rectified voltage via the energy obtained from the network and, which incorporates a wave multiplexer (9) whereby the voltage obtained from the high-frequency current coming from the resonant circuit (8) is multiplied by being raised and rectified and **characterized by** an inverter (4) which includes a low-pass filter (10) placed between the wave multiplexer (9) and the ground, providing that low-frequency noise is eliminated from the current without decreasing the voltage and that the current applied to the magnetron (2) is smoothed.